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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/924,785	09/05/1997	RICHARD W. PRATT	785	4422

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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 07/01/2003

35

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/924,785

Applicant(s)

PRATT, RICHARD W.

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24, 26 and 40-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-24, 26 and 40-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This communication is in response to amendment filed 02/03/03; claims 13-24, 26, and 40-61 remain pending and are hereby set forth for examination.
2. It is noted that written description (specifications) do not contain a recitation or written description of a "network device control software program". According to applicant's specification a "software program compiler (146)" and "software program (180)" seems to be the only software program element disclosed thought the specification. Therefore for the purposes of examination although not require, claimed "network device control software" refers to disclosed software program (180). Broadest reasonable interpretation will be given to the claimed term, see MPEP § 2111.
3. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this office action may be found in previous office action.
4. Claims 13-15, 17-24, 26, 40-43 and 45-46 are rejected under 35 U.S.C. §103(a) as being unpatentable over Madany U.S. Patent No. 5,922,050 in view of Beard U.S. Patent No. 6,067,577.

Regarding claim 13, Madany teaches features of the invention substantially as claimed, teaching a system/method for directing or controlling (i.e. managing) a network device (16) (col 3/lines 41-43) from a ("remote") client device (10) col 3/lines 35-39, col 2/lines 10-23);

a software program ("network device control software program") included in the network device (col 3/lines 53-56, col 4/lines 15-28), the program comprising:

a program file ("downloadable unit") (col 8/lines 4-10) in a compiled code form program file (col 1/line 60-col 2/line 3) for execution by a processor; wherein the client device used the downloadable unit to control (manage) the network device (col 5/lines 44-49);

said program including information ("communicator component") for establishing a communication across communication channel (14) between the client device (10) and the software program (col 4/lines 24-31, col 4/lines 15-19) included in the network device;

said program including information ("interface component") for enabling the client device to communicate with software program within the network device (col 5/lines 31-43, col 4/line 24-28);

said program including information ("configuration component") for controlling (managing) the network device (col 4/lines 41-48, col 7/lines 56-58);

said software program including information ("web server") for communicating (e.g. transmitting/receiving information) with the client device (col 7/lines 9-16, col 5/lines 5-8);

said software program including information ("communicator") for receiving and interpreting instructions (commands) from the client device (col 7/lines 9-16, col 5/lines 5-8) to the network device (col 6/lines 33, 58-60);

said software program including information ("configuration component") for performing commands from the client device on the network device (col 6/lines 34-42);

however Madany does not explicitly teach where the client device is a remote client device; a program contained (embedded) in a compiled software program file, extracting the embedded program from the compiled software program file,

Beard teaches a remote client device (12) receiving a program (e.g. applet) from a server (10) over the network (18) (col 3/lines 46-67);

a program or method ("the downloadable unit") is embedded in the compiled (binary) file of the operating system (software program), i.e. functions or methods within (embedded) the compiled code (i.e. binary form) of the operating system file (26) (software program), such as function services (library) are contained in a compiled code of the operating system program file (col 2/lines 28-32), these are identified by a particular package of classes (downloadable unit) (col 2/lines 56-63); wherein the libraries to be extracted for a class are embedded in the package for the class (col 5/lines 66-col 6/line 1);

extracting the embedded downloadable unit from the binary file, i.e. the functions library services (programs) within (embedded) the compiled code (i.e. binary form) of the operating system file (26) (software program) (col 2/lines 28-32), must be loaded into working memory (i.e. extracted) in order for an application program to employ the services provided by the library using techniques that are specific to the compiled code in which the library exists, i.e. is embedded (col 2/lines 63-67);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include a program(s) contained (embedded) in a compiled software program file, transferable over the Internet including means for extracting the embedded program from the compiled software program file to be used by an application, wherein the programs are configured as downloadable units, applets or embedded package of classes embedded in the compiled code of the operating system file, as taught by Beard, motivation to combine these teachings to configure embedded downloadable units, class packages or applets with dynamic linked libraries containing all information necessary to configure or define, control and communicate remotely with any device containing hardware/software resource.

Regarding claim 14, the network device includes anything (e.g. a network router) (Madany, col 3/lines 41-43).

Regarding claim 15, downloadable unit includes a Java™ class (Beard, col 2/lines 55-67).

Regarding claims 17-19, downloadable unit includes more than one downloadable unit (Beard, col 5/lines 21-30) are combined into downloadable unit packages (bundles) (Beard, col 5/line 66-col 6/line 4); are combined into downloadable unit bundles according to the downloadable unit functions (Beard: col 5/lines 21-30).

Regarding claim 20, the downloadable units have been combined into downloadable unit bundles according to particular class or kind ("version") information (Beard col 2/lines 56-67).

Regarding claim 21, wherein the software program includes an operating system (26) (Beard: col 4/lines 57-col 5/line 5).

Regarding claim 22, this claim is substantially the same as claim 14 discussed above, same rationale of rejection is applicable.

Regarding claims 23-24, wherein the web server communicates with the remote client using a file transfer protocol and using an Internet protocol (Madany, col 6/lines 12-21; Beard, col 3/lines 50-54).

Regarding claim 26, the operating system program file is currently executing on the network device (Beard, col 4/lines 48-51).

Regarding claim 40, this claim includes limitation discussed on claim 12, same rationale of rejection is applicable, and further limitations include:

receiving from a remote client at a network device a request to manage the network device (Madany, col 5/lines 24-30), the network device including a software resources (Madany, col 3/lines 41-62, Beard; a programs embedded in the compiled code (binary) file of the operating system file (26) col 2/lines 28-32);

locating a downloadable unit, which correspond to the request and is embedded in the binary file (Beard: col 2/lines 28-67);

forwarding the downloadable unit to the remote client wherein the remote client utilizes the downloadable unit to manage the network device (Madany, col 5/lines 23-30).

Regarding claim 41, this claim comprises the system including the means associated with the method discussed on claim 40, same rationale of rejection is applicable for the apparatus (system) claims.

Regarding claim 42, this claim comprises the computer storage medium storing the program code for causing a computer to perform the method discussed on claim 40, same rationale of rejection is applicable for the apparatus (computer storage medium claim).

Regarding claim 43, this claim comprises the system comprising limitations combined from method 13 and 40 discussed above, same rationale of rejection is applicable.

Regarding claim 45-46, the software program includes a series ("list") of available function services (Beard: col 2/lines 56-67), a downloadable unit for each of the available functions services (Beard, col 4/lines 57- col 5/line 21).

5. Claim 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Madany U.S. Patent No. 5,922,050 in view of Beard U.S. Patent No. 6,067,577 in further view of Gish U.S. Patent 5,768,510.

Regarding claim 16, however the above teachings do not explicitly teach wherein the step of obtaining a downloadable unit includes embedding ActiveX™ control associated browser capabilities;

Gish teaches a system/method distributed computer system comprising client computer software, server computer and a network for connecting the client computer to the server computer which utilize an execution software code configured to couple the server computer and the client computer via the network, disclosing means for obtaining downloading units (applets) using ActiveX™ control technology for embedding software into downloadable units installing and configuring associated browser capabilities (Gish: col 15/line-col 16/line 8, col 16/lines 54-col 17/line 10);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to modify existing system with means for obtaining a downloadable unit includes embedding ActiveX™ control and associated browser capabilities, as taught by Gish, motivation extend functionalities existing in Java (applets) technology to similar functions provided by ActiveX™ technologies, to give developers/designers to manufacture dynamic content for the Internet and network

devices that work on multiple platforms, and are being widely supported, these small, fast components that enable developers to embed parts of software supported by a variety of programming languages, where one of ordinary skill in the art readily recognizes that ActiveX™ could be substituted for Java™ without undue experimentation to practice the invention.

6. Claims 44, and 47-61 are rejected under 35 U.S.C. §103(a) as being unpatentable over Madany-Beard in view of Gish U.S. Patent No. 5,768,510 in further view of Nakagawa et. al. (Nakagawa) U.S. Patent No. 5,832,911.

Regarding claim 44, includes limitation discussed on claims 13 and 40, same rationale of rejection is applicable to these limitation, further limitations include:

obtaining a ("new downloadable unit") program (Madany, col 8/lines 4-41, col 1/lines 60-col 2/line 3) for performing a function ("new service") (Madany, col 5/lines 44-49),

retrieving an embedded downloadable unit from a software program ("network device control software program") compile code (binary) file having the embedded ("old downloadable unit") program for performing a (old service") service from the network device (Beard col 2/lines 28-32, 63-67), however prior art does not explicitly teach the substitution of program onto a network device;

Nakagawa teaches a system/method related to software distribution/maintenance with which a software distributors can provide and update for a number of users software/services over a network, for systematically distributed/maintained, re-installing and upgrading via a network connecting many distributor and users of client/server software, wherein a client program automatically updates the software to the latest version according to the update instruction information when it is received (Nakagawa: col 1/line 13-col 5/line 10, abstract), disclosing means for retrieving the network device control software program binary file having an embedded old downloadable unit for performing an old service from a network device (Nakagawa: col 22/lines 3562);

It would be obvious to one ordinary skilled in the art at the time the invention was made to modify exist system with means for retrieving the network device control software program binary file having an embedded old downloadable unit for performing an old service from a network device, as taught by Nakagawa, motivation would be to further enhance existing means for adding, upgrading services to include a software distribution and maintenance means obtainable over a network for other various types of software such as product software, shareware, embedded software, freeware, scientific prototype software, intra-office software, etc, in an immediately operable form.

Regarding claim 47, this claim comprises limitation(s) substantially the same as those discussed on claims 13, and 40-44, same rationale of rejection is applicable, further limitations of claim 47 include where a downloadable unit embedded in the binary file discussed above further includes, an interface component for generating a user-interface to enable a user at the remote client to enter requests to configure the network device (Madany, graphical user interface, i.e. enables a user to enter data, col 5/lines 34-43, interact with the device, col 3/lines 54-56, Beard, user interface col 4/lines 61-65, transmit (forwarding) request, col 5/lines 24-25 from the remote client to the network device);

and instructions (configuration code) that performs the requests to configure the network device (Madany: user configurable network device, col 4/lines 2-4, any device, col 3/lines 41-43; receiving/interpreting instructions (commands) from the client device col 7/lines 9-16, col 5/lines 5-8 to the network device col 6/lines 33, 58-60, Gish: embedding software into downloadable units associated browser capabilities col 15/line-col 16/line 8, col 16/lines 54-col 17/line 10).

Regarding claim 48, this claim is substantially the same as limitations in claims 13 and 40, same rationale of rejection is applicable.

Regarding claims 49-59, this claim is substantially the same as limitations in claims 23-24, and 14-22 respectively, same rationale of rejection is applicable.

Regarding claim 60, this claim comprises a limitation(s) substantially the same as those discussed on claim 13 and 40, same rationale of rejection is applicable.

Regarding claim 61, this claim is substantially the same as claim 26 discussed above, same rationale of rejection is applicable.

Response to arguments

7. Applicant indicates in regards to claims 13, 40-44 that prior art does not teach these claims.

In response to this argument it is respectfully noted that Applicant's argument fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

8. Applicant indicates that in the context of the abstract of instant application, the claim term "remote client" on the bases on known deductions that can be inferred from the abstract, the remote client is "not ~~the~~ typically the average network user but is a network professional, charged with establishing and maintaining the network that includes the network device to be managed".

In response to this rationale, applicant's interpretation of the invention is noted, however according to the written description, the claimed "remote client" (see Fig. 1) is not a "user". The remote client (110) seems to be a computer which includes a web engine (130) for communicating with the network device (120) and it also includes a web browser for retrieving/displaying web pages (see specification page 8, lines 10-20).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Mark R. Powell can be reached on (703) 305-9703. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6606. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or Faxed to:

(703) 746-7239, for Official communications and entry

Or:

(703) 746-7240, for Non-Official or draft communications, please label
"PROPOSED" or "DRAFT".

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington
VA, Fourth Floor (Receptionist), further ensuring that a receipt is provided stamped "TC 2100".

B. Prieto
Patent Examiner

MEHMET B. GECKIL
PRIMARY EXAMINER



CLEAN VERSION OF THE CLAIMS (NOT PROVIDED BY APPLICANT IN AMENDMENT 06/05/03)

13. (Amended Five Times) A system for managing a network device from a remote client, the system comprising:
a network device control software program included in the network device, the network device control software program comprising:
a binary file comprising a downloadable unit embedded in the binary file, the downloadable unit including
a communicator component for establishing a communications channel between the remote client and the network device control software program, an interface component for enabling the remote client to communicate with the network device control software program, and a configuration component for managing the network device;
an extractor for extracting the embedded downloadable unit from the binary file;
a web server for communicating with the remote client and for transmitting the downloadable unit to the remote client,
a communicator for receiving and interpreting commands from the remote client to the network device; and
a configuration component for performing commands from the remote client on the network device, wherein the remote client utilizes the downloadable unit to manage the network device.
14. The system of claim 13, wherein the network device includes a network router.
15. The system of claim 13, wherein the downloadable unit includes a Java™ class.
16. The system of claim 13, wherein the downloadable unit includes an ActiveX™ control.
17. The system of claim 13, wherein the downloadable unit includes more than one downloadable unit.
18. The system of claim 17, wherein the downloadable units have been combined into downloadable unit bundles.
19. The system of claim 18, wherein the downloadable units have been combined into downloadable unit bundles according to the downloadable unit function.
20. The system of claim 18, wherein the downloadable units have been combined into downloadable unit bundles according to version information.
21. The system of claim 13, wherein the software program includes an operating system.
22. The system of claim 21, wherein the network device includes a router.

23. The system of claim 13, wherein the web server communicates with the remote client using a file transfer protocol.

24. The system of claim 13, wherein the web server communicates with the remote client using an internet protocol.

26. The system of claim 13, wherein the software program is currently executing on the network device.

40. (Amended Three Times) A method comprising:

- receiving from a remote client at a network device a request to manage the network device, the network device including a network device control software program having a binary file;
- locating a downloadable unit which corresponds to the request and is embedded in the binary file;
- extracting the downloadable unit from the binary file; and
- forwarding the downloadable unit to the remote client wherein the remote client utilizes the downloadable unit to manage the network device.

41. (Amended Twice) A system comprising:

- means for receiving from a remote client at a network device a request to manage the network device, the network device including a network device control software program having a binary file;
- means for locating a downloadable unit corresponding to the request embedded in the binary file;
- means for extracting the downloadable unit from the binary file; and
- means for forwarding the downloadable unit to the remote client wherein the remote client utilizes the downloadable unit to manage the network device.

42. (Amended Three Times) A computer-storage medium storing program code for causing a computer to perform the steps of:

- receiving from a remote client at a network device a request to manage the network device, the network device including a network device control software program having a binary file;
- locating a downloadable unit which corresponds to the request and is embedded in the binary file;
- extracting the downloadable unit from the binary file; and
- forwarding the downloadable unit to the remote clients wherein the remote client utilizes the downloadable unit to manage the network device.

43. (Amended Four Times) A. system comprising:

- a web server for receiving from a remote client at a network device a request to manage a network device control software program which has a binary file with an embedded downloadable unit for performing the request, the downloadable unit including:

a communicator component for establishing a communications channel between the remote client and the network device control software program,

an interface component for enabling the remote client to communicate with the network device control software program, and

a configuration component for managing the network device control software program;

an extractor coupled to the web server for extracting the downloadable unit from the binary file; and

a communicator coupled to the extractor for forwarding the downloadable unit to the remote client upon request of the remote client, wherein the remote client utilizes the downloadable unit to manage the network device control software program.

44. (Amended Five Times) A method for modifying available remote device management services of a network device, the method comprising:

obtaining a new downloadable unit for performing a new service, the new downloadable unit including:

a communicator component for establishing a communications channel between a remote client and the network device,

an interface component for enabling the remote client to communicate with the new downloadable unit, and

a configuration component for managing the network device;

retrieving a network device control software program binary file having an embedded old downloadable unit for performing an old service from the network device;

substituting the old downloadable unit with the new downloadable unit; and

loading the network device control software program binary file having the new downloadable unit embedded in the binary file onto the network device.

45. The system of claim 13, wherein the software program includes a list of available functions.

46. The system of claim 45, further comprises a downloadable unit for each of the available function.

47. (New) A network device, comprising: a

network device control software program comprising:

a downloadable unit embedded in the binary file, the downloadable unit including a communicator component for establishing a communications channel between a remote client and the network device control software program, an interface component for generating a user-interface to enable a user at the remote client to enter requests to configure the network device, and a configuration component for forwarding the requests from the remote client to the network device over the communications channel;

communication code that receives and interprets the requests forwarded from the remote client to the network device, and configuration code that performs the requests to configure the network device.

48. (New) The network device of claim 47, further comprising a web server for communicating with the remote client and for transmitting the downloadable unit to the remote client upon request of the remote client, wherein the remote client utilizes the downloadable unit to manage the network device.

49. (New) The network device of claim 48, wherein the web server communicates with the remote client using a file transfer protocol.

50. (New) The network device of claim 48, wherein the web server communicates with the remote client using an internet protocol.

51. (New) The network device of claim 47, further comprising a network router.

52. (New) The network device of claim 47, wherein the downloadable unit includes a Java™ class.

53. (New) The network device of claim 47, wherein the downloadable unit includes an ActiveX™ control.

54. (New) The network device of claim 47, wherein the downloadable unit includes more than one downloadable unit.

55. (New) The network device of claim 54, wherein the downloadable units have been combined into downloadable unit bundles.

56. (New) The network device of claim 55, wherein the downloadable units have been combined into downloadable unit bundles according to downloadable unit function.

57. (New) The network device of claim 55, wherein the downloadable units have been combined into downloadable unit bundles according to version information.

58. (New) The network device of claim 47, wherein the network device control software program includes an operating system.

59. (New) The network device of claim 58, further comprising a router.

60. (New) The network device of claim 47, wherein the network device control software program includes extractor code for extracting the embedded downloadable unit.

61. (New) The network device of claim 47, wherein the network device control software program is currently executing on the network device.